6. PERSONNEL TRAINING

Training of OU 7-10 Glovebox Excavator Method Project operations personnel is a key element of the hazard identification and mitigation process. In addition to required operational position-based training, all assigned OU 7-10 Project personnel who access the operations areas will be trained in requirements contained in this HASP and other safety and health documents. Personnel will receive training, as specified in the applicable section of the HAZWOPER standard (29 CFR 1910.120, 2002), RWMC, DOE, federal, state, and INEEL companywide manuals as applicable.

All OU 7-10 Project training will be developed, conducted, and maintained in accordance with *Training and Qualzjcation* (Manual 12,2002) and OU 7-10 Project or applicable facility supplemental training procedures. Companywide *Training and Qualzjcation* describes the INEEL processes that ensure the INEEL work force is properly trained to work effectively and safely and ensures that all personnel in the company understand their roles, the role of management, and the role of the Training Directorate in training INEEL employees.

The OU 7-10 Project nuclear facility manager (NFM) or project operations manager controls all support activities, including training, necessary to operate and maintain the project. The NFM and operations manager are responsible for all aspects of efficient facility operation and maintenance and are responsible to ensure that all operational personnel are properly trained.

6.1 Training

Training personnel ensure that OU 7-10 Project personnel receive the training necessary to perform their job assignments safely and effectively. The Training Directorate oversees and coordinates training analysis, design, development, implementation, and evaluation, in close association with responsible management. The Training Directorate also ensures that employees who require qualification or certification meet the minimum qualification requirements and receive appropriate training. Other activities include tracking and maintaining training records.

Training settings and methods are carehlly selected to optimize the trainee's learning experiences. They may include classroom training, web-based instruction, self-study, and on-the-job training as appropriate.

6.2 Personnel Selection

Personnel selection for the OU 7-10 Project complies with the company staffing procedures. Employee position descriptions are used for personnel selection and these position descriptions identify entry-level requirements for all INEEL personnel.

6.3 Qualification and Certification Processes

Qualification requires demonstration and documentation of experience, physical attributes, training, knowledge, and skills necessary to perform a specificjob function. Supervisors are qualified by meeting entry-level requirements associated with the supervisory position and as identified in the project training implementation matrix. This ensures that supervisors possess the required knowledge and skills, when combined with their previous education, experience, and training, to perform responsibilities specific to their position. Positions that require qualification for the OU 7-10 Project include excavator operator, glovebox operators, radiological personnel, shift supervisors, and assigned health and safety professionals.

Certification is the formal endorsement by facility management of an individual who has completed the qualification(s) and other requirements (e.g., a physical examination, written examination, operational evaluation, and oral examination) related to a specific position. Examples of positions that require certification for the OU 7-10 Project include shift supervisor and excavator operator. The project training implementation matrix details positions of responsibility and those requiring additional training and certification.

6.4 Implementation of Training

The OU 7-10 Project operations manager is responsible for ensuring that crafts and maintenance personnel assigned to work at the OU 7-10 Project have the skills necessary for their particular craft. The OU 7-10 Project facility manager is responsible for ensuring that crafts and maintenance personnel are qualified to perform assigned work at the facility in accordance with *Training and Qualzjcation* (Manual 12,2002).

Facility prejob briefings and facility-specific CERCLA, hazard communication, and HAZWOPER training courses satisfy requirements of 29 CFR 1910.1200(2002), "Hazard Communication," and 29 CFR 1910.120(2002), respectively. Radiological Control personnel assigned to support OU 7-10 Project operations will participate in an ongoing training program in accordance with 10 CFR 835 (2002) in addition to OU 7-10 Project operations-specific training. Operators and shift supervisors have fissile material handling as a collateral duty and will receive fissile material handling training as part of their certification process.

The operations manager is responsible to ensure that personnel have an adequate level of facility knowledge, including a general overview of the facility, facility-specific hazards, safety, and applicable procedures. A thorough analysis of course work and other associated training required for OU 7-10 Project operations personnel requiring certifications or qualifications will be performed and a formal continuing training program for OU 7-10 Project will be developed. The project training implementation matrix details positions of responsibility and positions requiring additional training and certification.

Table 6-1 is a training guide provided to address basic HAZWOPER and radiological training requirements based on entry to OU 7-10 Project operations areas. This is not intended to be a complete list of OU 7-10 Project operational training requirements for all assigned personnel but lists the HAZWOPER access requirements for entry into the general operational areas. Individual training plans that reflect required training for individual employees will be developed for OU 7-10 Project operations personnel that specify required qualification and certification requirements. Individual training plans are revised at least annually or as needed.

Personnel requiring OU 7-10 Project operation- or position-specific qualifications or certifications will complete the necessary training before beginning their project activities. As appropriate, a qualified instructor or subject matter expert will conduct the training and document it in accordance with companywide procedures, or formal on-the-job training will be conducted in accordance with MCP-61, "Conduct and Evaluation of on-the-Job Training."

Table 6-1. Minimum required training for access to Operable Unit 7-10 Project operational areas.

Personnel and Operational Areas to be Accessed (unless specific positions are listed, minimum access requirements apply to all other operations personnel and visitors)	Shift Supervisor,[a] Operations Foremen, Operators, and Assigned Industrial Hygiene and Radiological Control Personnel	Project Support Areas[b]	General Weather Enclosure Structure Area Access	Overburden Buffer Area, Drum Handling Areas, and Drum Preparation and Handling Area Access	Access into Retrieval Confinement Structure and inside Packaging Glovebox System after Start of Waste Zone Retrieval
Required Training					
40-hour HAZWOPER[c]—operations	Yes			d	**NO ACCESS without prior approval from OU 7-10 Project operations manager, Radiological Control, and IH Assigned project operations personnel only**
24-hour HAZWOPER[c]—operations			Yes[h]	d	
Project operations health and safety plan training[e]	Yes		Yes	Yes	
Project-site orientation briefing[f]		Yes			
Radiological Worker I or II[g]	RW II	Escort or RW I	Escort or RW I	RW II	
Respiratory protection	Y				

Note: Shaded fields indicate specific training is not required or applicable.

a. Will be trained to the HAZWOPER supervisor level.

b. Project operational support areas located within the RWMC operations area may require additional training requirements such as Idaho National Engineering and Environmental Laboratory access (Blue Card) or RWMC access. Contact the OU 7-10 Project shift supervisor for additional training requirements.

c. Includes 8-hour HAZWOPER refresher training as applicable, and supervised field experience as follows:
40-hour HAZWOPER = 24-hour supervised field experience and 24-hour HAZWOPER = 8-hour supervised field experience.

d. 40-hour or 24-hour HAZWOPER training requirement will be determined by the assigned IH or safety professional based on the nature of the operational tasks and potential for exposure to contaminants or significant safety hazards.

e. Includes project-specific hazards communications (29 CFR 1910.120, 2002), site-access and security, decontamination and emergency response actions, as required by 29 CFR 1910.120(e) (2002), "Training."

f. Orientation includes briefing of site hazards, designated work areas, emergency response actions, and personal protective equipment requirements. Personnel receiving project-site orientation briefing only are limited to the areas outside designated work areas and must be escorted by a project supervisor or designee who is fully trained on the requirements of the health and safety plan.

g. Training requirements and allowances for escort into radiologically controlled areas are provided in Program Requirements Document-183. Source user training is required for personnel directly handling radioactive sources in accordance with Management Control Procedure-137.

h. Visitors on official business may be escorted by a fully trained employee into the general Weather Enclosure Structure area (Waste Management Facility-671) without 24- or 40-hour HAZWOPER training. Visitors must have prior authorization from the RWMC shift supervisor, and the facility operations must not present a risk of visitor exposure to potential contaminants of concern.

CFR = *Code of Federal Regulations*
HAZWOPER = Hazardous Waste Operations and Emergency Response
IH = industrial hygienist
OU = operable unit
RW = radiological worker
RWMC = Radioactive Waste Management Complex

6.5 Training Records

Training records for OU 7-10 Project personnel will be kept in accordance MCP-85, "Training Records Administration," by the project training organization. Documentation of a qualification or certification is placed in an employee's training file and maintained by the appropriate training organization. Employee experience and employment history records are maintained by the Human Resources organization in individual personnel files.

6.6 Project Operations-Specific Training

As part of OU 7-10 Project operations, training personnel will receive HASP training. After completing HASP training, project operations personnel will sign Form 361.25, "Group Read and Sign Training Roster," or equivalent computer-based training, indicating that they have received this training, understand the project tasks, associated hazards and mitigations, and agree to follow all HASP and other applicable work control and safety requirements. Form 361.25 (or equivalent) training forms are available on the INEEL Intranet under Forms.

A trained HAZWOPER 8-hour supervisor (shift supervisor or other person who has been trained by the HAZWOPER supervisor) will monitor the performance of each newly 24- or 40-hour trained worker to meet the 1 or 3 days of supervised field experience, respectively, in accordance with 29 CFR 1920.120(e), "Training." Following the supervised field experience period, the supervisor will complete Form 361.47, "Hazardous Waste Operations (HazWoper) Supervised Field Experience Verification," or equivalent, to document the supervised field experience.

Note 1: Supervised field experience is only required if personnel have not previously completed this training at another CERCLA (42 USC § 9601 et seq., 1980) site (documented), or they are upgrading from 24- to 40-hour HAZWOPER training. A copy of the training record must be kept at the OU 7-10 Project site as evidence of training or be available electronically in Training Records and Information Network (Training Records and Information System).

Note 2: Completed supervised field experience training forms (Form 361.47, or equivalent) should be submitted to the OU 7-10 Project training coordinator for inclusion in the Training Records and Information System.

6.7 Prejob and Postjob Briefings and Safety Meetings

All OU 7-10 Project operational activities performed in accordance with companywide requirement documents will require a prejob briefing conducted by a supervisor. During this briefing, tasks associated with OU 7-10 Project operations will be outlined, hazards identified, hazard controls and mitigation reviewed, PPE requirements discussed, waste minimization opportunities communicated, and employees' questions answered. Following the completion of operational activities, a post-job briefing will be conducted with particular emphasis of capturing lessons learned and process improvement for future operations.

Other safety meetings on various subjects will be conducted periodically for operations personnel to reinforce specific safety topics. A shift supervisor, assigned safety and health operations personnel or worker may conduct safety meeting. Attendance at the safety meetings will be documented on an applicable form and submitted to training personnel for entry into Training Records and Information System.

7. SITE CONTROL AND SECURITY

The OU 7-10 Glovebox Excavator Method Project operational areas will be fenced and controlled to prevent unauthorized entry into operations areas. Entry into and exit out of the OU 7-10 Project area will be controlled through the appropriate use of barriers, signs, and other measures in accordance with PRD-5117, "Accident Prevention Signs, Tags, Barriers, and Color Codes." Radiological controlled areas will be established by RadCon personnel, in accordance with the MCP-187, "Posting Radiological Control Areas."

Personnel not directly involved with OU 7-10 Project operations shall be excluded from entering the OU 7-10 Project operations area. The OU 7-10 Project operations area in the SDA will be posted and controlled as a CERCLA-regulated area. Visitors, such as inspectors, may be authorized to enter the established OU 7-10 Project operations area provided they are conducting official business and have met the minimum OU 7-10 Project operational training requirements for the area to be accessed (as listed on Table 6-1 and as posted). Nonoperational personnel will not be allowed access to active operational areas without processing through the OU 7-10 shift supervisor. All training for access into the requested area will be verified. Nonoperational personnel will only be allowed into operational areas to perform the specific function for which access was granted and may be limited in these areas because of operational activities and associated hazards (at the discretion of the shift supervisor).

The general configuration of the OU 7-10 Project operations area is illustrated in Figure 1-3. Individual OU 7-10 Project building and project complex drawings will be drafted as construction is completed.

7.1 Radiological Confinement Zones

For ventilation design purposes, areas of the WMF-671 WES and associated confinements are classified as Confinement (pressure) Zones of Clean Area, I, II, or III in accordance with criteria in DOE-ID "Architectural Engineering Standards." A Confinement Zone III classification applies to areas where highly radioactive materials are handled. A Confinement Zone II classification applies to areas where high levels of radioactive contamination could be present. A Confinement Zone I classification is assigned to operating areas and maintenance areas that are next to Zone II and III areas, and a classification of Clean Area is assigned to areas that normally are free of contamination. Training requirements for access to these general areas is provided on Table 6-1. The following list describes each of the confinements and their confinement zone classification:

- Packaging glovebox system gloveboxes — Zone III
- Retrieval confinement structure — Zone III
- Personnel access vestibule — Zone I
- Drum loadout enclosures — Zone II
- Transfer area — Zone I
- Weather enclosure structure — Zone I
- Personnel monitoring room — Clean Area.

7.2 Radiologically Contaminated Material Release

If project equipment or materials become radiologically contaminated within these radiological confinement zones, they will not be released until required radiological surveys have been completed (e.g., hand-held instruments and swipes) in accordance with MCP-139, "Radiological Surveys," MCP-425, "Radiological Release Surveys, and the Disposition of Contaminated Materials," as stated in the RWP, and as directed by RadCon personnel.

7.3 Site Security

The OU 7-10 Project is secured and controlled with the existing RWMC and the Lockheed Martin Advanced Environmental Systems fence and through appropriate posting to prevent entry into OU 7-10 Project operational areas. Additionally, INEEL security forces will provide general facility security in conjunction with RWMC operations.

Note: Signs are routinely lost because of high winds and will be replaced as soon as possible the next working day following discovery.

7.4 Wash Facilities and Sanitation

Project operations, such as waste handling, storage, PGS operations, and sampling will involve close contact with waste and other potentially contaminated surfaces. Personnel will obey all radiological survey requirements to prevent inadvertent uptakes of radiological or chemical contaminants. Ingestion of hazardous substances is more likely when workers do not practice good personal hygiene habits during and following activities in the operations areas of the project. It is important to wash hands, face, and other exposed skin areas thoroughly after completion of work and before smoking, eating, or chewing gum or tobacco.

Sanitation and shower facilities will be available for OU 7-10 Project operations personnel within RWMC facility areas.

Note: No smoking, chewing, eating, or applying lip balm is allowed within CERCLA-regulated areas and radiologically controlled areas. A designated drinking area may be established in the WMF-671 WES for heat stress prevention in accordance with IH and RadCon Foreman review and restrictions.

7.5 Designated Eating Areas and Smoking Area

The designated eating areas for operations personnel will be established in the OU 7-10 Project operations areas and also will include the RWMC cafeteria (located in WMF-637) and designated eating areas.

Smoking will only be permitted in designated smoking areas outside the OU 7-10 Project CERCLA-regulated areas. Personnel will comply with all INEEL smoking polices, including disposal of smoking materials in the proper receptacles. All Guide-7063, "INEEL Wildland Fire Management Guide," requirements related to smoking at the INEEL will be practiced.

8. OCCUPATIONAL MEDICAL SURVEILLANCE

The OU 7-10 Glovebox Excavator Method Project operations personnel shall participate in the INEEL OMP, defined in Program Description Document -61, "Occupational Health Program," to implement the requirements of DOE Order 440.1A (1998), "Worker Protection Management for DOE Federal and Contractor Employees"; DOE Order 440.1-4 (1998), "Contractor Occupational Medical Program"; and 29 CFR 1910.120(f) (2002). Medical surveillance examinations will be provided at the following times:

- Before assignment
- At least once every 12 months for each employee covered unless the attending physician believes a longer interval (not greater than biennially) is acceptable
- At termination of employment or reassignment to an area where the employee would not be covered if the employee has not had an examination within the last 6 months
- At more frequent times, if the examining physician determines that an increased frequency of examination is medically necessary
- Personnel who are or may be exposed to hazardous substances at or above the OSHA PEL, or published exposure limits, without regard to respirator use for 30 or more days per year
- All employees who are injured, become ill, or develop signs or symptoms because of possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation
- All employees who wear a respirator for 30 days or more a year or as required by 29 CFR 1910.134 (2002), "Respiratory Protection."

Personnel who wear a respirator in performance of their job, or who are required to take respirator training to perform their duties under this plan, must participate in the medical evaluation program for respirator use at least annually, as required by MCP-2726.

If the OMP does not have sufficient information to complete a medical evaluation before respirator training, the employee's supervisor will be notified. The employee will not be permitted to fit test until the needed information is provided and any additional examination or testing is completed.

A single copy of the OU 7-10 Project HASP, job hazard analysis requirements, required PPE, and other exposure-related information will be made available, upon request, to the INEEL OMP physician (and subcontractor physicians) conducting medical surveillance for employees participating in project operations. Exposure monitoring results and hazard information furnished to the OMP physician will be supplemented or updated annually if required (as stated in Section 12) as long as the employee is required to maintain a hazardous waste and material employee medical clearance. The OMP physician will then evaluate the physical ability of an employee to perform the work assigned.

The OMP physician shall evaluate the physical ability of OU 7-10 Project operations personnel to perform the work assigned, as identified in this HASP, other project facility-related documentation, and individual training plans. A documented medical clearance (e.g., a physician's written opinion) will be provided to the employee and supervisor stating whether the employee has any detected medical condition that would place him or her at increased risk of health impairment from project operations,

emergency response operations, respirator use, and radiological work, as applicable. The OMP responsibilities, with regard to personnel assigned to project operations include, but are not limited to, the following:

- Providing current comprehensive medical examinations (as determined by the examining physician) at an INEEL medical facility for full-time project operations personnel
- Obtaining records or reports from an employee's private physicians, as required by the OMP director
- Performing a medical evaluation on return-to-work cases following an absence in excess of one work week (40 consecutive work hours) resulting from illness or injury
- Conducting a medical evaluation in the event that management questions the ability of an employee to work or if an employee questions his or her own ability to work.

Personnel are responsible for communicating any work or medical restrictions to their supervisor so modified work assignments can be made if necessary. During the MCP-3003 prejob briefing, the supervisor conducting the briefing should ask workers if they have any work restrictions. However, it is the responsibility of each employee to inform the supervisor of any work or medical restrictions.

Note: All managers, supervisors, and foremen have access to employees' current medical restrictions, certifications and surveillances through the OMP database on the Safety and Health homepage or OMP reports link: http://webhome4/OMPReports/. This allows management to review medical restrictions, surveillances, and certifications before assigning work tasks to employees.

8.1 Project Operations Subcontractor Workers

If subcontractors participate in OU 7-10 Project operations or may be exposed to OU 7-10 Project operational hazardous substances or health hazards at or above the established permissible exposure limit for these substances without regard to the use of respirators for 30 days or more a year, they shall participate in a subcontractor medical surveillance program that satisfies the requirements of 29 CFR 1910.120(f) (2002). The physician's written opinion will serve as documentation that subcontractor personnel are fit for duty.

Medical data from the subcontractor employee's private physician, collected pursuant to hazardous material worker qualification, shall be made available to the INEEL OMP physicians, upon request. A subcontractor employee's past radiation exposure history may be requested and, if so, will be submitted to the INEEL radiation dosimetry and records section, in accordance with MCP-188, "Issuance of Thermoluminescent Dosimeters and Obtaining Employees Dose History," and MCP-2381, "Employees Exposure Questionnaire," of the *INEEL Radiation Protection Manual*.

8.2 Injuries at the Operable Unit 7-10 Project Site

It is the policy of the INEEL that an INEEL OMP physician examines all injured personnel for the following reasons:

- An employee is injured on the job
- An employee is experiencing signs and symptoms consistent with exposure to a hazardous material

- An employee is believed to have been exposed to toxic substances or physical or radiological agents in excess of allowable limits during the course of a project at the INEEL.

Note: In the event of an illness or injury, the decision to provide first aid and transport to the nearest medical facility or whether to immediately request an ambulance and continue to stabilize and provide first aid should be based on the nature of the injury or illness and likelihood that transporting the individual may cause hrther injury or harm. Most likely, the person making this decision will only be trained to the medic first or CPR level and should contact the CFA medical facility at 777 or 526-1515 for hrther guidance if there is any question as to the extent of injury or potential to cause hrther harm by movement of the iniured individual.

In the event of a known or suspected injury or illness caused by exposure to a hazardous substance or physical or radiological agent, the employee will be transported to the nearest INEEL medical facility for evaluation and treatment. The shift supervisor is responsible for obtaining as much of the following information as is available to accompany the individual to the medical facility:

- Name, job title, work location, and supervisor's name and phone number
- Substance, physical or radiological agent exposed to (known or suspected), and material safety datasheet, if available
- Nature of the incident and injury or exposure and associated signs or symptoms of exposure
- First aid or other measures taken
- Locations, dates, and results of any relevant personal or area exposure monitoring or sampling
- List of PPE worn during this work (e.g., type of respirator and cartridge used).

Further medical evaluation will be determined by the treating or examining physician in accordance with the signs and symptoms observed, hazard involved, exposure level, and specific medical surveillance requirements established by the OMP director in compliance with 29 CFR 1910.120(2002).

Note: In the event of an illness or injury to a subcontractor employee, the employee will be transported to the nearest INEEL medical facility (CFA-1612) as appropriate based on injury severity to have the injury stabilized. The employee will then be transported to the subcontractor's treating physician or off-Site medical facility.

The OU 7-10 Project shift supervisor will be contacted if any injury or illness occurs to personnel working for the OU 7-10 Project. As soon as possible after an injured employee has been transported to the INEEL medical facility, the shift supervisor or designee will make additional notifications listed in Section 10.

Radiological Control personnel will evaluate all actual and suspected radiological exposures in excess of allowable limits and will establish follow-up actions. For internal uptakes (as calculated committed effective dose equivalent values), the "Established Levels of Radionuclide Intake for Consideration of Medical Intervention" (EDF-INEL-003) will be used as the basis for this evaluation and follow-up actions. All wounds will be examined by an OMP physician to determine the nature and extent of the injury. The RadCon supervisor in conjunction with an OMP physician will determine whether the

wound can be bandaged adequately for entry into a radiological contamination area in accordance with Article 542 of the RCM (PRD-183).

8.3 Substance-Specific Medical Surveillance

Project operations will involve the excavation, handling, sampling, packaging, and storage of OU 7-10 waste contaminated with radiological and chemical constituents (see Tables 2-2 and 2-3). Several of the nonradiological waste constituents have OSHA substance-specific standards that govern the manner that personnel monitoring and medical surveillance are conducted. These substances have exposure action levels (see Table 2-4) that trigger medical surveillance requirements. Based on the facility safety design features and engineering controls (e.g., confinement, barriers, and negatively pressured HEPA-filtered ventilation system) for control of radiological and nonradiological constituents, exposure levels for work inside the WMF-671 WES at the excavator RCS and PGS operator positions are not anticipated to reach these action levels. Additionally, the **DSS** will be employed to minimize particulate generation in the RCS, thus, hrther reducing the potential for exposures.

Protective clothing and respiratory protection will be worn for personnel required to enter the RCS or contaminated PGS systems to perform preventive or unscheduled maintenance tasks. These tasks are not anticipated to be routine in nature and if entry into airborne radioactivity areas, supplied air respiratory protection will be worn. Based on the engineering controls, the limited nature of potential exposures, and the level of protective equipment that will be worn, exposures are anticipated to be nominal.

All OU 7-10 Project operations will be evaluated to determine the hazards and potential exposures to operations personnel in accordance with PRD-25, "Activity Level Hazard Identification, Analysis, and Control." The IH and RadCon personnel will conduct exposure assessments for each operation to determine the potential for exceeding exposure limits. The regulatory requirements for each OSHA-mandated substance-specific standard will be reviewed against exposure monitoring data (where available) and in the context of the exposure potential using professional judgment. If OU 7-10 Project operations involving chemicals listed in 29 CFR 1910.1003(2002), "13 Carcinogens," and MCP-2703, "Carcinogens," will be followed.

All exposures to ionizing radiation will be evaluated in accordance with the RCM and, where deemed appropriate, be controlled through the use of an RWP in accordance with MCP-7, "Radiological Work Permit."

If new OU 7-10 Project waste forms or streams are identified or operational chemicals are introduced during the course of operations, then exposures will be evaluated and quantified to determine if a substance-specific standard applies. If regulatory mandated substance-specific standard action levels are triggered, then affected personnel will be enrolled in applicable substance-specific medical surveillance programs.

9. PERSONNEL ROLES AND RESPONSIBILITIES

The organizational structure for OU 7-10 Glovebox Excavator Method Project operations reflects the resources and expertise required to operate the facility while minimizing risks to worker health and safety, the environment, and the general public. Job titles of the individuals in key roles at the OU 7-10 Project operational facilities are shown on the organizational chart in Figure 9-1. The operations organization includes project operations management and supervision; operators and technicians; environment, safety, health, and quality assurance representatives; and support personnel. The OU 7-10 Project NFM and the operations manager will interface to determine the most appropriate use of these resources.

The emergency organization structure with both responsibilities and authorities at RWMC is contained in the *INEEL Emergency Plan/RCRA Contingency Plan,* Addendum 3 (PLN-114-3). Section 9 outlines the responsibilities of key OU 7-10 Project personnel.

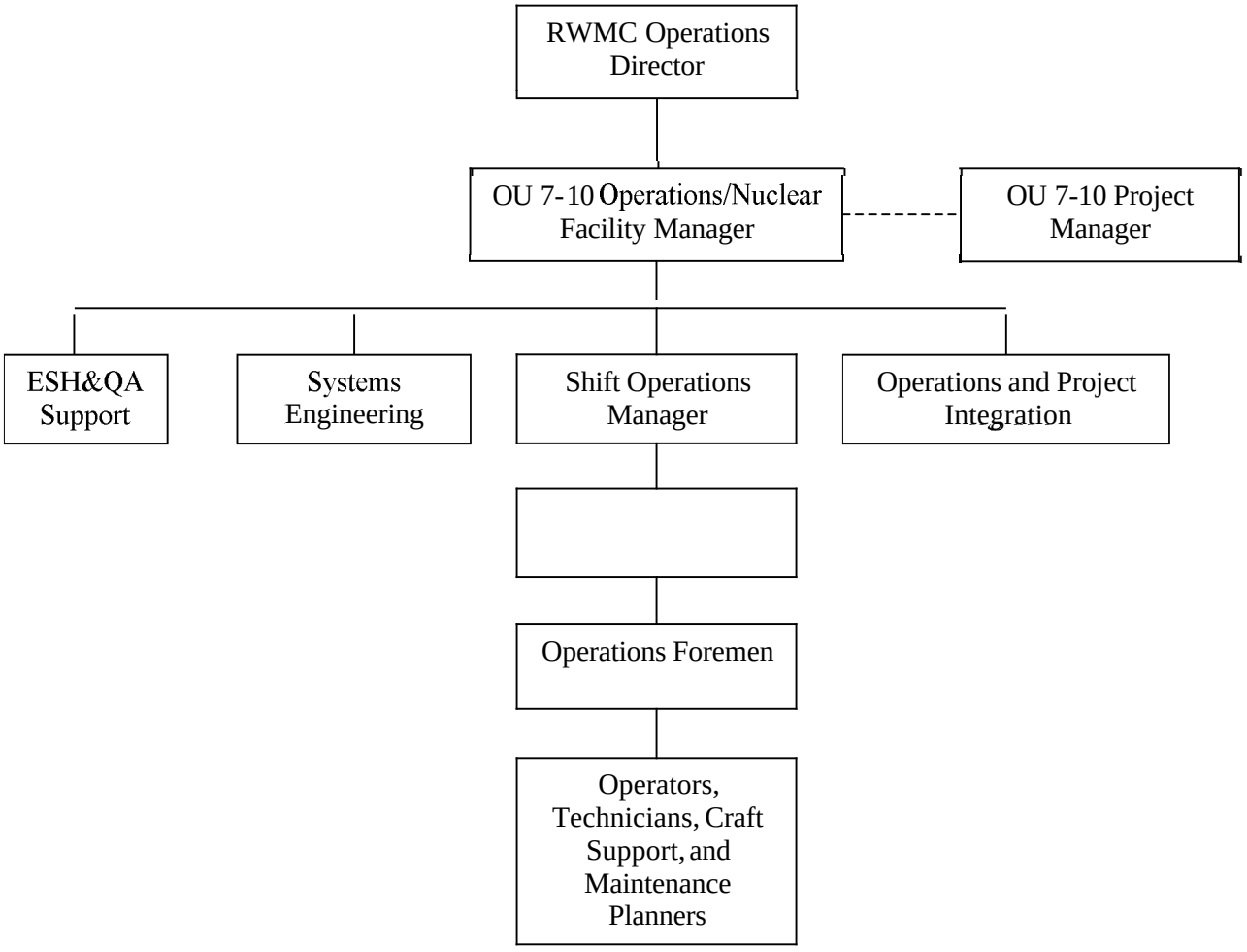


Figure 9-1. Operations organizational interfaces for the Operable Unit 7-10 Glovebox Excavator Method Project.

9.1 Project Operations Personnel

9.1.1 Project Operations Management

9.1.1.1 Radioactive Waste Management Complex Operations Director. Because construction, operations, and D&D&D activities for the OU 7-10 Project will occur within the RWMC operations boundary, the RWMC operations director will serve as the operations director for all OU 7-10 Project operations. The RWMC operations director will ensure that documents identified within the RWMC authorization basis (i.e., RWMC safety analysis report, technical safety requirement, and permits) remain current and adequately address the scope and hazards encountered for activities within the scope of RWMC operations.

The RWMC operations director will provide infrastructure programs to support facility safety and work processes for personnel assigned to the OU 7-10 Project area. These programs include supplying support services (e.g., maintenance craft skills, RadCon personnel, and engineering support), equipment (e.g., forklifts and water trucks), and document control and records management functions. The RWMC operations director also establishes and staffs an Emergency Response Organization (ERO), which includes developing site-specific emergency plans and maintaining a command post and support equipment.

9.1.1.2 Project Operations and Nuclear Facility Manager. The OU 7-10 Project NFM is responsible to the RWMC operations director for all OU 7-10 area operational activities and supports the project through the project manager as the work package manager for startup, operations, and maintenance activities related to OU 7-10 Project scope, schedule, and budget performance. The NFM is responsible for the safe operation of OU 7-10 Project equipment and facilities and for ensuring that safety systems protect human health and the environment.

9.1.1.3 Shift Operations Manager. The shift operations manager is responsible for the day-to-day operational activities of the OU 7-10 Project and is the designated NFM alternate, with signature authority for all matters regarding operations and nuclear facility management. Specific duties and responsibilities include directing performance of operational activities in accordance with the approved schedule, communicating expectations to the crews, assessing their readiness to perform work in a manner consistent with all applicable safety and health requirements and company procedures, and managing the operational shift crews.

9.1.2 Shift Operations

9.1.2.1 Shift Supervisor. The shift supervisor is the individual responsible on-shift during OU 7-10 Project operations, and has authority to act for management during normal and abnormal operations. Specific duties and responsibilities include ensuring the safe and efficient execution of work for waste retrieval, segregation, handling, and storage, and ensuring conduct of operations is performed in such a way as to protect human health and the environment.

9.1.2.2 Operations Foremen. Operations foremen are responsible for on-shift waste handling operations and maintenance activities and for reporting to the RWMC shift supervisor. He or she ensures the efficient execution of work within the WMF-671 WES and ensures conduct of operations is performed safely and protective of human health and the environment.

9.7.2.3 Operators (Retrieval, Soil Handling, and Material Handling). Operators are assigned to each shift to perform retrieval, soil handling, and glovebox operations. Operators will be fully qualified

to perform their prescribed duties. In addition, a roving operator is assigned to assist with drum-out operations and fissile monitoring, and will support these activities as required.

9.1.2.4 Data Recorder. The data recorder will assist with the identification and characterization of waste in the PGS, records data, enters data into the drum tracking system and, when required, acts as a verifier of waste disposition locations.

9.7.2.5 Laborers and Heavy Equipment Operators. Specific duties and responsibilities include operating the excavator, forklifts, and flatbed to transport drums, handling the drums within the secondary confinement area, and understanding and applying OU 7-10 Project-specific safety and health policies.

9.1.2.6 System Engineers (Shift Technical Advisor). System engineers are responsible to the operations manager and the NFM and will receive day-to-day direction through the lead system engineer. Specific duties and responsibilities include the following:

- Verifying that all proposed design changes meet all applicable requirements
- Establishing and maintaining technical baselines
- Managing the engineering change control process
- Implementing configuration management for each structures, systems, and components for which the system engineer is or will be responsible.

9.1.2.7 Radiological Control Technicians. Radiological control technicians report directly to the facility RCT foreman, and are responsible for ensuring compliance with the INEEL RadCon program within the OU 7-10 Project, including acting as a RadCon information resource for project personnel. Also, during emergencies, RCTs are responsible for stopping work or ordering an area evacuated when an imminent radiation hazard exists and such actions are necessary to ensure worker safety.

9.7.2.8 Radiological Control Technician Foreman. Specific duties and responsibilities of the RCT foreman include directing and supervising day-to-day activities for RCTs, reviewing radiological work permits, and ensuring that requirements of applicable DOE orders, company programs, and the RCM are properly incorporated into project-specific procedures, practices, and controls

9.1.2.9 Mechanics and Instrument Technicians. Maintenance personnel are responsible for maintenance and repair of project operations mechanical and electrical equipment. Personnel in this category include all maintenance crafts, Life Safety Systems technicians, and their line management. Technicians are responsible for specific maintenance and monitoring activities that include equipment maintenance, troubleshooting, repair, testing, instrument calibration, inspections, and data surveys.

9.1.3 Environment, Safety, Health, and Quality Assurance

9.1.3.1 Radiological Engineer. The radiological engineer provides radiological engineering support within the project. Specific duties and responsibilities include acting as point of contact for all radiation protection issues related to the project, ensuring that radiological hazards are identified and appropriate controls are implemented to maintain worker exposure to those hazards ALARA, and identifying conditions that may impede implementation of company standards for safety, quality, and operations and maintenance. The radiological engineer is also responsible for initiating actions to correct

conditions, including stopping work if necessary, that adversely impact safety, quality, or operations and maintenance.

9.1.3.2 Environmental Engineer. Responsibilities of the environmental engineer include providing overall technical expertise with respect to regulatory issues, natural and cultural resources, and risk assessment for the OU 7-10 Project. The Environmental Engineer identifies environmental and regulatory issues that affect operations and develops solutions in coordination with the OU 7-10 Project engineer and other project task leads. The Environmental Engineer also works with the project task leads and management to develop appropriate mitigation measures that minimize potential noncompliance with environmental requirements when environmental issues are identified.

9.1.3.3 Safety Professional. The assigned INEEL safety professional reviews work packages, observes operational activities, assesses compliance with the INEEL safety and health manuals, signs SWPs, advises the shift supervisor on required safety equipment, answers questions on safety issues and concerns, and recommends solutions to safety issues and concerns that arise during operations. The safety professional may conduct periodic inspections in accordance with MCP-3449, "Safety and Health Inspections," and may have other duties at the task site as specified in other sections of this HASP, or in INEEL PRDs or MCPs. Additionally, the safety professional will support OU 7-10 facility and project management by investigating accidents and injuries and preparing written reports to project and facility management related to hazard identification and appropriate mitigation efforts.

9.1.3.4 Industrial Hygienist. The assigned INEEL IH is the primary source for information about nonradiological hazardous and toxic agents during operations. The IH assesses the potential for worker exposures to hazardous agents in accordance with the INEEL safety and health manual MCPs, and accepted industry IH practices and protocol. By participating in work control development and approval process, the IH assesses and recommends appropriate hazard controls for the protection of operations personnel, operates and maintains airborne sampling and monitoring equipment, reviews for effectiveness, and recommends and assesses the use of PPE required in this HASP (recommending changes as appropriate to facility management).

9.7.3.5 Quality Assurance Engineer. Duties and responsibilities of the quality assurance engineer include implementing internal quality monitoring, assessment, and surveillance by establishing and maintaining an internal assessment and monitoring schedule; reviewing design and performance specifications and other design documents to determine if quality requirements are properly included; and ensuring quality assurance compliance is achieved in accordance with applicable requirements established by the company, DOE, state, and federal regulations.

9.1.4 Operations Support

9.1.4.1 Operations Integration Specialist. Specific duties and responsibilities of the operations integration specialist include interfacing between operations and all other project teams (e.g., project management, design, safety, and health, environmental, criticality protection, radiological controls, records management, and document control) to help ensure that operations is informed of requirements that impact operational activities; the underlying driver for all requirements impacting operational activities is known and understood; and OU 7-10 Project deliverables that are not created by operations, but impact operation's documents and responsibilities, are coordinated and scheduled for delivery in time to support operational deadlines.

9.7.4.2 Safety Analyst. The safety analyst performs nuclear safety analyses and prepares and maintains the nuclear safety analysis documents required by 10 CFR 830 Subpart B, "Safety Basis Requirements." Specific duties and responsibilities include acting as the point of contact for safety

analysis issues related to the OU 7-10 Project, scheduling and tracking of safety analysis work, preparation and maintenance of documented safety analyses and technical safety analysis requirements, and preparation of unreviewed safety question screens and evaluations.

9.1.4.3 Waste Generator Services Facility Representative and Technical Specialist. Duties and responsibilities of the Waste Generator Services facility representative and technical specialist include the following:

- Collaborating with project personnel to complete initial evaluation of waste types generated as part of process operations
- Assigning a probable waste type
- Maintaining the waste management records in the INEEL Integrated Waste Tracking System database
- Meeting with the waste generator to obtain and document the following information:
  - Identification of the waste generation process, schedule, and potential pollution prevention opportunities
  - Identification of starting materials for the waste generation process
  - Definition of the expected waste material components and characteristics and all process knowledge data.

The Waste Generator Services facility representative and technical specialist assumes cradle-to-grave responsibilities for a given waste stream and ensures that all activities in this process are completed.

9.1.4.4 Radioactive Waste Management Complex Classification Officer and Security Personnel. The RWMC security personnel provide facility security, review procedures and plans before waste retrieval or relocation, and address security concerns expressed by OU 7-10 Project personnel. In addition, these personnel conduct damage assessments in the event of a security incident, coordinate with DOE-ID Security and the Classification Officer, and identify any added security measures required.

9.1.4.5 Training Specialist. Duties and responsibilities include supporting line management through training analysis, design, development, implementation, and evaluation to ensure all personnel on the OU 7-10 Project are properly trained and qualified to perform their assigned tasks.

9.1.4.6 Administrative Support. Administrative support and office personnel are responsible for support functions that do not involve actual facility operations. Activities performed, such as word processing, filing, stocking office supplies, and answering the phone, are performed exclusively in an office environment.

9.1.5 Visitors

All visitors with official business in the OU 7-10 Project operational areas (including INEEL personnel, representatives of DOE, and state or federal regulatory agencies) may not proceed into the WMF-671 WES without having the appropriate training (see Table 6-1) as described below:

- Receiving OU 7-10 Project operational-specificbriefing for the operations area to be accessed

- Signing applicable entry logs and work control documents (for the area to be accessed)
- Wearing the appropriate PPE.

A fully trained OU 7-10 Project operations representative (e.g., shift supervisor or operator) will escort visitors entering the project operational areas.

Note 1: Visitors may not be allowed into the WMF-671 WES during certain operations to minimize safety, health and radiological hazards to the visitor(s). The determination as to any visitor's demonstrated need for access into the OU 7-10 Project operational area will be made by the shift supervisor in consultation with RadCon personnel and assigned safety and health professionals.

Note 2: Visitors with no official business at project operations areas will not be permitted.

10. EMERGENCY RESPONSE PLAN

This emergency response plan defines the roles and responsibilities of OU 7-10 Project operations personnel during an emergency. Such an emergency could be within OU 7-10 Project operations area, at the RWMC, or a Site-wide emergency. This section provides emergency plan contingencies at a project level and is a HAZWOPER-mandated supplemental plan to the "INEEL Emergency Plan RCRA Contingency Plan" (PLN-114) information. Plan-114 describes the overall process developed to respond to and mitigate consequences of emergencies that might arise at the INEEL. This section defines the responsibilities of OU 7-10 operations personnel and their interface with the INEEL ERO by providing guidance for responding to abnormal events during project operational activities.

Plan-114 may be activated in response to events occurring at the RWMC, at the OU 7-10 Project complex, or at the discretion of the emergency coordinator. Once the INEEL plan is activated, OU 7-10 Project operations personnel will follow the direction and guidance communicated by the emergency coordinator.

Note: The **OSHA** HAZWOPER definition of an emergency is not defined the same as in DOE Orders 151.1A (2000), "Comprehensive Emergency Management System," and 232.1 (1997), "Occurrence Reporting and Processing of Operations Information." For this reason, the term event will be used in this section when referring to project operational HAZWOPER emergencies.

10.1 Preemergency Planning

The INEEL Emergency Plan RCRA Contingency Plan provides the basis for preplanning all INEEL emergency events. This base plan is supplemented with INEEL facility-specific addendums. This preplanning makes it possible for the project to anticipate and appropriately respond to abnormal events that can affect operational activities. Preplanning also ensures that this project operations emergency response plan (Section 10) is integrated with the INEEL and RWMC emergency response programs. Specific procedures for addressing emergency events and actions to be taken are hrther described in the facility-specific emergency implementing procedures. Finally, this HASP addresses operational-specific hazards, potential emergency events, and the protective actions to take following such events. Emergency response program planning elements that must be completed before the initiation of project operations include the following:

- Establishing emergency warning signals and evacuation routes
- Establishing effective site communications
- Establishing requirements for emergency equipment and supplies
- Implementing personnel accountability procedures
- Identifying an adequate number of CPR and medic first-aid trained personnel
- Establishing the preferred means for notifying the INEEL ERO of abnormal events.

Note: All OU 7-10 Project operational emergencies will be reported through the RWMC shift supervisor to the ERO for classification in accordance with Section 4 of PLN-114. If the RWMC ERO is activated, site emergency response will follow PLN-114, RWMC Addendum 3 (PLN-114-3).

10.2 Emergency Preparation and Recognition

The HASP sections for hazards identification and mitigation (Section 2) and accident prevention (Section 4) provided the strategy that will be followed at OU 7-10 Project operational areas to prevent accidents. Similarly, emergency preparation and recognition also will require operations personnel to be constantly alert for potentially hazardous situations and signs and symptoms of chemical exposure or releases. All OU 7-10 Project operations personnel should be familiar with the techniques for hazard recognition and the associated response including proper operational notifications. Emergency phone numbers and evacuation route maps will be located throughout project operational areas.

Preparation and training on emergencies will include proper project access and egress procedures in response to project operational events and INEEL emergencies as part of the HASP training and project operations area access training where applicable. Visitors also will receive a briefing on emergency procedures during the hazard and general operations orientation briefing (see Table 6-1) and potentially complete HASP training depending on the project operations area to be accessed. Visitor emergency actions briefing will include, alarm identification, location and use of communication equipment, location of Site emergency equipment, and evacuation.

On-scene response to and mitigation of operational emergencies could require the expertise of INEEL fire department and medical personnel. Emergencies that could occur include the following:

- Accidents resulting in injury
- Fires
- Spills of hazardous or radiological materials
- Tornadoes, earthquakes, and other adverse natural phenomena
- Vehicle or transportation emergencies
- Safeguard and security emergencies
- Emergencies at nearby facilities that could prompt evacuation or take-cover actions at the task site.

10.3 Emergency Facilities and Equipment

Emergency response equipment, including the items described in Table 10-l, will be maintained within the OU 7-10 Project operations area. The RWMC PLN-114 Addendum 3 (PLN-114-3) lists emergency equipment available at RWMC. This includes the emergency coordinator located in WMF-637 and equipment located in WMF-601 at RWMC. Additional heavy construction and other equipment listed in PLN-114-3 are available for use during emergencies.

The INEEL fire department maintains an emergency HAZMAT response van that can be used to respond to an event or emergency within the project operations areas. Fire department personnel also are trained to provide immediate hazardous material spills and medical services. Additionally, the CFA-1612 medical facility is manned by medical personnel to evaluate and stabilize injured personnel or those experiencing signs and symptoms of exposure. At least two individuals with current medic and first-aid training will be present within the OU 7-10 Project operations area during active operations.

Table 10-1. Emergency response equipment to be maintained at the Operable Unit 7-10 Project site during operations.

Equipment Name and Quantity Required	Location at Operable Unit 7-10 Project	Responsible Person	Frequency of Inspection
Fire extinguishers"	Located throughout the operations area, administration buildings, the WMF-671 WES, outside RCS and Packaging Glovebox System, in each waste storage area, and on each piece of industrial and heavy equipment and in each vehicle	Operations manager	Monthly
First aid supplies	Vehicles, designated administrative trailers, and within the WMF-671 WES	Operations manager	Inspect weekly and sign tag with annual inspection
Eye wash station	At designated operational areas where chemical mixing or use occurs and where there is a significant eye hazard (as determined by the IH and Safety professional)	Operations manager	Monthly or the frequency determined by the manufacturer
Eye wash bottle[b]	At strategic locations throughout the WMF-671 WES as determined by the IH and safety professional	Operations manager	Monthly or replace after use
Hazardous materials spill kit	Within the WMF-671 WES and staged absorbent material in the RCS during excavation activities for liquid absorption (RCS absorption of liquids not considered a spill as described in Section 10.5.2.2)	Operations manager	Monthly
Communication equipment available	In all operational areas or in possession of key operations personnel	Operations manager	Availability and daily functional check

a. 10A or 60BC extinguishers or as specified by the Radioactive Waste Management Complex fire protection engineer
b. An eye wash bottle will be used to provide an immediate eye flush if required. Portable eye wash stations that meet the ANSI Z 358.1-1998 (1998) requirement are available at the WMF-671 WES and other locations as determined by the **M** and safety professional. Employees are instructed to use the bottles and immediately proceed to the decontamination and treatment facility permanent eye wash station. Eye wash stations Will be located Within 100-ft or 10 seconds from significant eye hazard operations as determined by the **M** and safety professional.
IH = industrial hygienist WES = Weather Enclosure Structure
RCS = Retrieval Confinement Structure WMF = Waste Management Facility

10.4 Emergency Communications

In the event of an emergency, capability to perform the following actions is required:

- Summon INEEL emergency response resources
- Immediately notify operations personnel
- Inform others of the emergency.

Communications equipment within the OU 7-10 Project operations areas will include a combination of radios, telephones (i.e., mobile, cellular, or hardline), and pagers. The OU 7-10 shift supervisor will be notified of any project emergency event and the shift supervisor will then make the required RWMC shift supervisor and INEEL ERO notifications.

10.4.1 Notifications

During emergency situations, the OU 7-10 shift supervisor will be notified of any operational emergency event. The OU 7-10 shift supervisor will then notify the RWMC shift supervisor who will make the required ERO and Warning Communications Center (WCC) notifications. The following information should be communicated, as available, to the RWMC shift supervisor:

- The caller's name, title (e.g., OU 7-10 shift supervisor), telephone number, and pager number
- Exact location of the emergency
- Nature of the emergency including time of occurrence, current site conditions, and special hazards in the area
- Injuries, if any, including numbers of injured, types of injuries, and conditions of the injured personnel
- Emergency response resources required (e.g., fire, hazardous material, and ambulance)
- Additional information as requested.

Note: If the OU 7-10 shift supervisor or RWMC shift supervisor cannot be contacted, then the WCC will be notified of the emergency event, and the information listed above will be communicated. The WCC also must be told that notification to the RWMC shift supervisor and emergency coordinator has not been made.

10.5 Personnel Roles, Lines of Authority, and Training

10.5.1 Idaho National Engineering and Environmental Laboratory Emergency Response Organization

The INEEL ERO structures are based on the incident command system and are described in PLN-114 and facility-specific addendums to that plan.

10.5.2 Role of Operations Personnel in Emergencies

Depending on the event, a graded response and subsequent notifications will take place. The OU 7-10 shift supervisor and operations personnel responsibilities are described in Sections 10.5.2.1and 10.5.2.2. Operations personnel will respond to emergencies only within the limits of their training and designated by their position. All personnel are trained to the OU 7-10 operations and RWMC-specific emergency actions as part of the access training or will be escorted by someone who has been trained. Emergency response actions also will be covered as part of the HASP briefing.

10.5.2.1 Operable Unit 7-70 Shift Supervisor. The OU 7-10 Project operations shift supervisor is responsible for initiating all requests for emergency services (e.g., fire and medical) and for notifying the RWMC shift supervisor of abnormal or potential abnormal events occurring within the project operations area. In addition, the shift supervisor or trained alternate will serve as the area warden. The area warden is responsible for conducting personnel accountability for all operations areas. This will be accomplished by

completing positive sweeps of all OU 7-10 Project buildings and areas to ensure personnel are aware of the emergency event. Following notification of the emergency event, operations personnel will be directed to the designated assembly point where the attendance log (or equivalent) will be used to determine what personnel are onsite (role call). The OU 7-10 shift supervisor then will report accountability status to the RWMC shift supervisor, who will in turn, initiate communicate this information to the RWMC emergency coordinator.

Additionally, the OU 7-10 shift supervisor will control the scene of any emergency event (from a safe distance) until a member of the Incident Command System authority arrives at the scene to take control as the on-scene commander. When communicating emergency information to the on-scene commander, the OU 7-10 shift supervisor will provide all requested information about the nature of the event, potential hazards, and other information requested by the on-scene commander.

10.5.2.2 Operable Unit 7-10 Project Operations Assigned Personnel. Every person within the project operations area during an operations emergency event or INEEL emergency has a role to play. Personnel must be constantly aware of potential problems or unexpected hazardous situations and immediately report these situations to the OU 7-10 shift supervisor. All personnel are expected to assist with accountability when required, to report near misses and emergency events of concern to the OU 7-10 shift supervisor, and to respond to emergency events, as provided for in this HASP. Specific facility personnel responsibilities are outlined in Table 10-2.

Table 10-2. Responsibilities during an emergency.

Responsible Person	Action Assigned
Any OU 7-10 Project worker	Contact the OU 7-10 shift supervisor
Any fire-extinguisher-trained worker	Extinguish fires (incipient fires only) or contain spills (within level of training)
Any medic first aid and CPR-trained personnel	Provide first aid within level of training (on a voluntary basis)
Shift supervisor or designee	Contact the RWMC shift technical lead or emergency coordinator (if emergency coordinator has formed)
Shift supervisor or designee	Contact the INEEL site emergency telephone number or the Warning Communications Center (if RWMC shift technical lead cannot be contacted)
Shift supervisor or trained designee	Conduct personnel accountability and report information to the RWMC shift technical lead or emergency coordinator
Shift supervisor or designee	Report incipient fires to the INEEL fire department Report spills to the INEEL spill notification team
Shift supervisor	Report occupational injuries or illnesses to the Occupational Medical Program

CPR = cardiopulmonary resuscitation
INEEL = Idaho National Engineering and Environmental Laboratory
OU = operable unit
RWMC = Radioactive Waste Management Complex

10.5.2.3 Personnel Accountability and Area Warden. The OU 7-10 project operations personnel are required to TAKE COVER within the project area or may be required to evacuate the project operations area or RWMC in response to an EVACUATION. In each case, the OU 7-10 shift supervisor or trained alternate shall account for the people present within the operations area. The shift supervisor or trained alternate will serve as the area warden for OU 7-10 Project operations and complete

the personnel accountability (following positive sweeps of OU 7-10 buildings and areas). The results of this accountability will then be reported to the RWMC shift supervisor or emergency coordinator (if the emergency coordinator has been formed).

70.5.2.4 Spills. If the material spilled is known and is small enough to be safely contained, project operations personnel will handle spill control within their level of training (as described in Sections 10.5.2.4.1 and 10.5.2.4.2) using spill supplies in the project operational area. The spill will be immediately reported the to the OU 7-10 shift supervisor or RWMC shift supervisor (if the OU 7-10 shift supervisor cannot be contacted). Reporting requirements will be determined by the RWMC emergency coordinator in accordance with MCP-190, "Event Investigation and Occurrence Reporting." If any release of a hazardous material occurs, task site personnel will comply with the following immediate spill response actions.

10.5.2.4.1 Untrained ***Initial*** Responder — The requirements for the untrained initial responder (or if the material characteristics are unknown) are listed below:

- Place equipment in a safe configuration (as applicable)
- **Evacuate** and **isolate** the immediate area
- Notify and then **seek help** from and **warn** others in the area
- Notify the OU 7-10 shift supervisor.

70.5.2.4.2 Trained Responder — The requirements for the trained responder where material characteristics are known and no additional PPE is required are listed below:

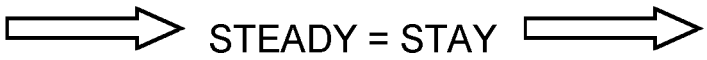
- Place all equipment in a secure configuration (as applicable)
- **Seek help** from and **warn** others in the area
- **Stop** the spill if it can be done without risk (e.g., returning the container to the upright position, closing valve, and shutting off power)
- **Provide** pertinent information to the OU 7-10 shift supervisor
- **Secure** any release paths if safe to do so.

10.6 Emergency Alerting, Responses, and Sheltering

10.6.1 Alarms

Alarms and signals are used at the OU 7-10 Project and the INEEL to notify personnel of abnormal conditions requiring a specific response. These include radiation-monitoring alarms denoted by fast ringing bells and fire alarms that may vary from building to building within the RWMC and OU 7-10 Project operational areas. Responses to these alarms are addressed in the general employee and site-access training for environment, safety, and health employees. In addition to these alarms, emergency sirens located throughout the RWMC serve as the primary means for signaling emergency TAKE COVER or EVACUATION protective actions.

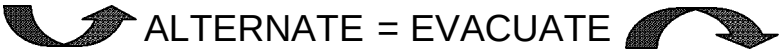
10.6.1.1 Take Cover—Continuous Siren. Radiation or hazardous material releases, adverse weather conditions, or other event or emergency conditions may require that all personnel take cover indoors in the nearest building. A TAKE COVER protective action may be initiated as part of a broader response to an emergency situation and may precede an evacuation order. The order to TAKE COVER is usually announced by activating the emergency siren. The signal to take cover is a CONTINUOUS SIREN. The order to TAKE COVER is usually announced by activating the RWMC emergency siren.



TAKE COVER also can be given by word of mouth, radio, or voice paging system. When ordered to TAKE COVER, OU 7-10 Project operations personnel will place project operations equipment in a safe configuration (as applicable) and then seek shelter in project operations or administrative buildings (if outdoors). Eating, drinking, and smoking are not permitted during take-cover conditions.

Radiological control personnel will assist and direct all workers exiting from radiological contamination areas during a TAKE COVER alarm.

70.6.7.2 Total Area Evacuation—Alternating Siren. A total area evacuation is the complete withdrawal of personnel from the entire project operations and RWMC area. The evacuation signal is an ALTERNATING SIREN.



When ordered to EVACUATE, operations personnel will place project operations equipment in a safe configuration (as applicable) and then proceed along the specified evacuation route to the designated assembly area or as directed by the emergency coordinator. For total area evacuations, the RWMC command post is activated and all personnel will gather at the primary RWMC evacuation assembly area or the location designated by the emergency coordinator. The shift supervisor or trained alternate will then complete the personnel accountability and report the result of the accountability process to the RWMC emergency coordinator. Radiological Control personnel will assist and direct all workers exiting from radionuclide-contaminationareas during an EVACUATION alarm. Eating, drinking, and smoking are not permitted during emergency evacuations.

70.3.7.3 Local Area (Operable Unit 7-70 Project Operations Area) Evacuation. A local area evacuation is the complete withdrawal of personnel from a portion of or all OU 7-10 Project operational areas, but it does not necessarily require the complete evacuation of the entire RWMC. An example would be if a CAM alarmed within the WMF-671WES. This alarm will serve as the primary emergency evacuation signal for personnel in the WMF-671WES area. The order to evacuate OU -710 Project operational areas also can be given by word of mouth, radio, or voice paging system. When ordered to evacuate the project operational area, personnel shall place the project operations equipment in a safe condition (as applicable) and then proceed along the specified evacuation route to the assembly area designated for local area evacuations, or as directed by the OU 7-10 shift supervisor. (Emergency evacuation routes for each project building will be developed and posted following construction.) The OU 7-10 shift supervisor will then conduct personnel accountability and report the emergency event to the RWMC shift supervisor as described above. Eating, drinking, and smoking are not permitted during emergency evacuations. Radiological Control personnel will assist and direct all workers exiting from radiological contamination areas during a local area evacuation alarm.

10.7 Evacuation Assembly Areas and Central Facilities Area Medical Facility

The RWMC maintains primary and secondary evacuation routes and assembly areas. These routes may be used in response to a total facility evacuation as directed by the RWMC emergency coordinator. Copies of the following figures will be available in the project operations area. Figure 10-1 shows the RWMC evacuation and assembly areas and Figure 10-2 contains a map showing the location of CFA-1612 medical facility.

In the event that the project operational area is evacuated, personnel shall assemble in the designated assembly area, or as directed by the OU 7-10 shift supervisor (local area evacuation) or RWMC emergency coordinator. If a total area evacuation of the RWMC is ordered, then project personnel shall relocate to the RWMC primary evacuation assembly area (see Figure 10-1) or as directed by the emergency coordinator.

10.8 Medical Emergencies and Decontamination

Medical emergencies and responses to injuries or suspected exposures will be handled as stated in Section 8.2. Decontamination of personnel and equipment is described in Section 11.2.

10.9 Reentry, Recovery, and Site Control

All reentry and recovery activities will follow general Site security and control requirements identified in Section 7 unless conducted as part of an emergency response action. All entries into OU 7-10 Project operational areas performed in support of emergency actions will be controlled by the on-scene commander.

10.9.1 Reentry

During an emergency response it is sometimes necessary to reenter the scene of the event. Reasons for performing a reentry may include:

- Performing personnel search and rescues
- Responding to medical first-aid needs
- Performing safe shutdown actions of operational equipment or processes
- Performing mitigating actions
- Evaluating and preparing damage reports
- Performing radiation or hazardous material surveys.

Reentries will be carehlly planned to ensure that personnel are protected from harm and to prevent initiating another emergency event. Reentry planning is undertaken on a graded approach and will be based on the nature of the initiating event, hazards to personnel and structures, and purpose for the reentry. All reentries will be approved by the emergency coordinator in accordance with Emergency Plan Implementing Procedure-77, “Reentry.”

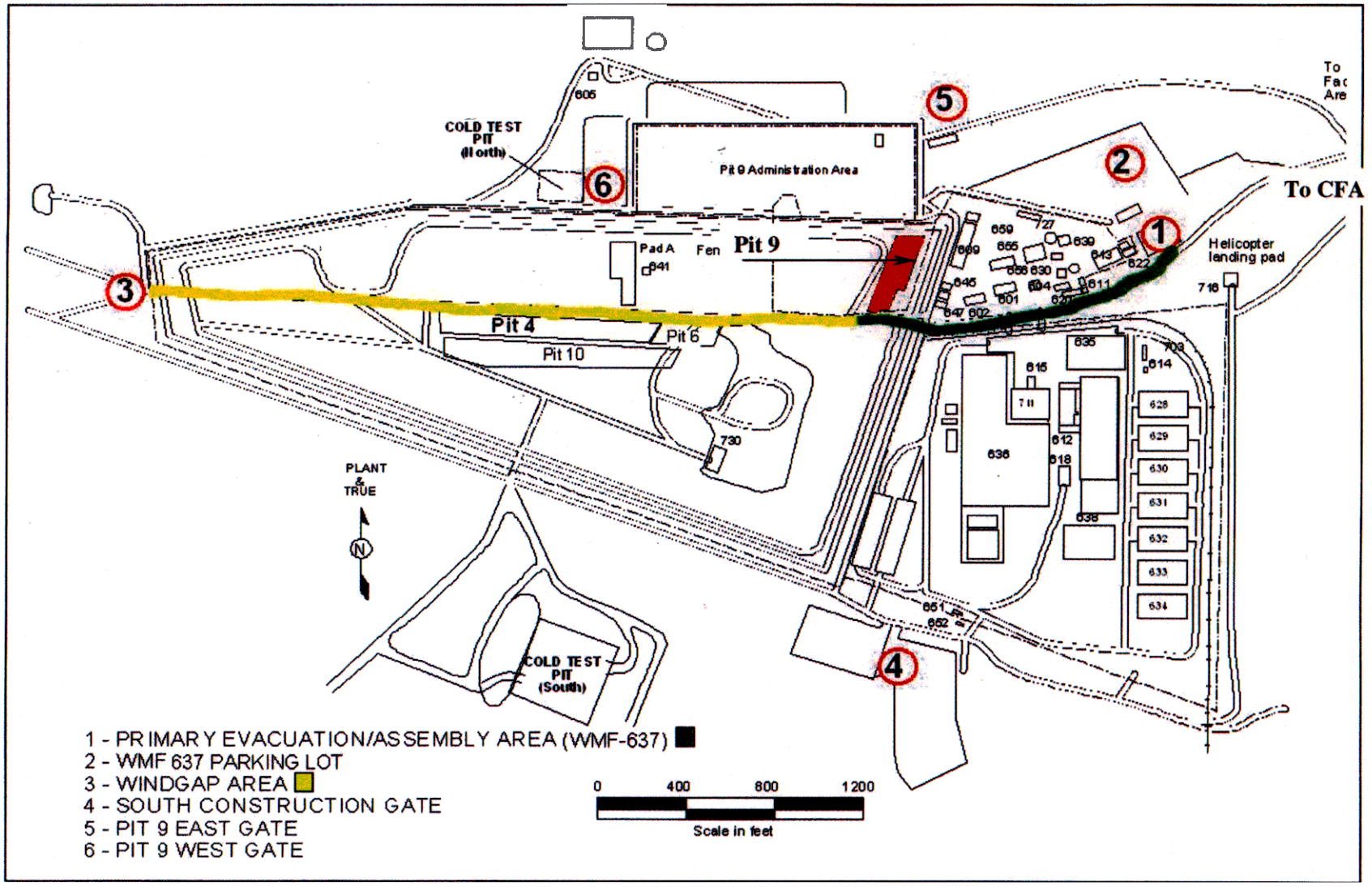


Figure 10-1. Evacuation and assembly areas at the Radioactive Waste Management Complex.

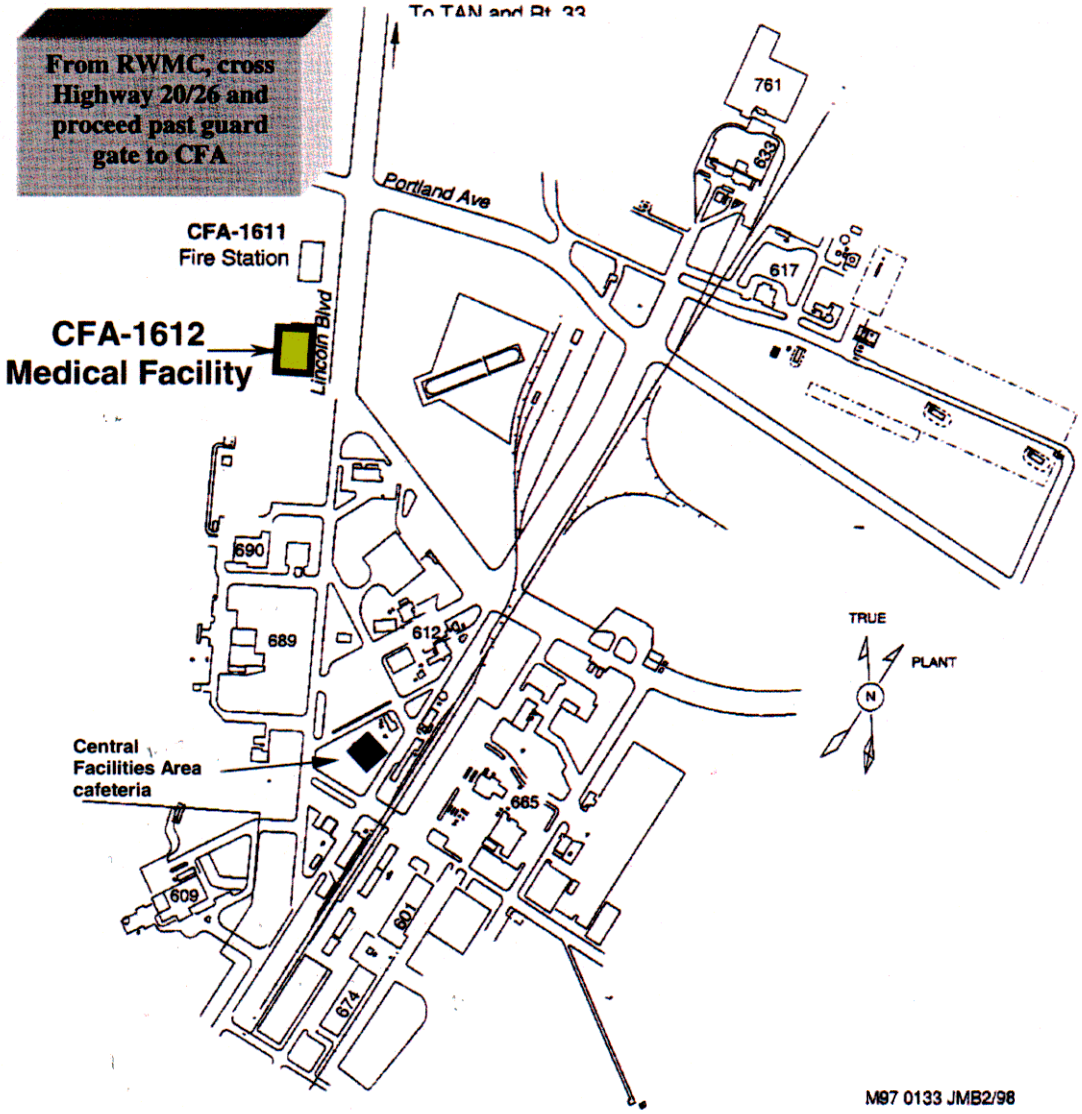


Figure 10-2. Map showing the route to the nearest medical facility (Central Facilities Area-1612).

10.9.2 Recovery

After the initial corrective actions have been taken and effective control established, response efforts will shift toward recovery. Recovery is the process of (1) assessing post-event and post-emergency conditions, (2) developing a plan for returning to preevent and preemergency operating conditions, when possible, and (3) following the plan to completion. The RWMC emergency coordinator, in consultation with the project NFM, operations manager, and RWMC operations director are responsible for determining when an emergency situation is sufficiently stable to terminate the emergency and enter the recovery phase. The emergency coordinator, in accordance with Emergency Plan Implementing Procedure-78, "Emergency Event Termination," will consult with the NFM, operations manager, and RWMC operations director and, with concurrence of the emergency director, will decide on termination

of the emergency event. The emergency coordinator will conduct a turnover with the assigned recovery manager, who will implement the recovery phase of the event. The emergency coordinator, in accordance with Emergency Plan Implementing Procedure-80, "Recovery," and with concurrence of the emergency director, will appoint a recovery manager. The emergency coordinator will consult with the NFM, operations manager, and operations director to obtain their recommendation for a recovery manager.

Where a restart of OU 7-10 Project operations is required following a shutdown, all operational restart requirements of MCP-2783, "Startup and Restart of Nuclear Facilities," will be followed.

10.10 Critique of Response and Follow-up

A review and critique will be conducted following all emergency events, drills, and exercises at the INEEL. In some cases, an investigation may be required before commencing recovery actions. For this reason care should be exercised to preserve evidence when appropriate. The OU 7-10 Project NFM or operations manager will lead all critiques of OU 7-10 Project operational events requiring a critique in accordance with PLN-114.

10.11 Telephone and Radio Contact Reference List

Table 10-3 lists the points of contact for the OU 7-10 Project operations. **A** copy of this list or similar list with key operational contacts will be posted at the OU 7-10 Project shift desk at all times. Because personnel listed may change frequently, working copies will be generated as required to note new positions and changes of personnel assigned. This HASP should not be revised with a document action request to note these changes.

Table 10-3. Operable Unit 7-10 Project emergency contact list.

Contact Title	Contact Name	Phone Number/ Radio Net	Pager Number
Warning Communications Center, medical, fire, security	NA	777, 6-1515	NA
First aid (CFA medical dispensary, CFA-1612)	NA	6-2356	NA
Occupational Medical Program	NA	6-1596	NA
OU 7-10 Project operations and nuclear facility manager	M. Dicken	6-1085	5076
OU 7-10 Project manager	M. Pratt	6-5565	3237
OU 7-10 Project shift operations manager	J. Barker	6-3432	7667
OU 7-10 Project industrial hygienist	B. Perkes	6-9358	6355
OU 7-10 Project safety professional	K. Wooley	6-4731	7368
OU 7-10 Project radiological engineer	R. Horne	6-5318	5898
RWMC operations director	D. Bright	6-4223	5270
RWMC shift desk	Shift supervisor	6-2767 or RWMC trunked radio	
RWMC nuclear facility manager	A. Millhouse	6-6932	5304
RWMC Radiological Control office	Foreman	6-2710	
RWMC Completion Project director	J. Schaffer	6-3029	6451
OU 7-10 Project DOE-ID representative	J. Snook	6-5920	NA

CFA = Central Facilities Area
DOE-ID = U.S. Department of Energy Idaho Operations Office
NA = not applicable
OU = operable unit
RWMC = Radioactive Waste Management Complex

11. DECONTAMINATION PROCEDURES

The OU 7-10 Project operations will involve decontamination of the PGS, excavator, equipment, RCS building surfaces, exterior waste containers, other operationally contaminated items requiring decontamination, and potentially some degree of personnel decontamination. Every effort will be made to prevent contamination of OU 7-10 Project personnel and equipment through the use of engineering controls, isolation of source materials, contaminant monitoring, personnel contamination control training, and by following material handling requirements and procedures for contaminated or potentially contaminated materials. Where contact with potentially contaminated surfaces or entry into known contaminated areas is anticipated, additional radiological monitoring as described in Section 3 in combination with use of PPE will be necessary to control the hazard. This section provides guidance on how decontamination will be performed.

The OU 7-10 Project facility engineering design features (confinements) in conjunction with contamination prevention and control practices and proper protective clothing donning and doffing procedures, will serve as the primary means to eliminate the need for personnel decontamination. Where decontamination is required, decontamination procedures will be used. Management Control Procedure-148, "Personnel Decontamination," contains information on personnel radionuclide decontamination. Radionuclide decontamination operations required for equipment or areas will be performed in accordance with Chapter 4 of companywide *Manual 15A* (PRD-183), in accordance with the "OU 7-10 Glovebox Excavator Method Project Facility Shutdown Plan and D&D&D Pre-Plan" (PLN-343), and at the direction of RadCon personnel

11.1 Contamination Control and Prevention

Contamination control and prevention procedures will be implemented to minimize OU 7-10 Project operations personnel contact with contaminated surfaces that will be encountered during project operations. The use of engineering controls, protective barriers, protective clothing, modified work control practices, or addition of hold points and surveys will all be used to minimize direct contact with contaminated surfaces. The following contamination control and prevention measures will be employed:

- Identify potential sources of contamination and design containment, isolation, and engineering controls to eliminate or mitigate any potential for contact or release of contaminants (where feasible)
- Preplan all operational activities where contact with contamination is anticipated and conduct dry runs to validate operating procedures or maintenance activities as deemed appropriate
- Sleeve or place a disposable barrier between equipment and tools and the contaminated surface or environment (where feasible)
- Limit the number of personnel, equipment, and materials that enter the contaminated area
- Wear disposable outer garments and use disposable equipment (where possible)
- Use hold points defined in procedures and work orders to monitor for contamination where anticipated

- Implement immediate decontamination procedures to prevent the spread of contamination where contamination is found on the outer surfaces of equipment or grossly contaminated clothing during operational activities (including decontamination tasks)

- Use only the established radiological entry and exit control points when accessing contaminated areas to minimize the potential for cross-contamination and expedite contamination control surveys.

11.2 Equipment and Personnel Decontamination

The OU 7-10 Project operational decontamination procedures will be used for routine decontamination of the PGS and other areas where contamination is anticipated (waste handling and packaging areas) to prevent the spread of contamination and to meet OU 7-10 Project operational requirements. In addition, decontamination is necessary to control contamination and protect areas outside the RCS and PGS confinements to maintain a clean working area within the WMF-671 WES. Both radiological and nonradiological contamination will be evaluated when decontaminating surfaces.

Radionuclide decontamination operations for equipment or areas will be performed in accordance with Chapter 4 of the RCM and at the direction of RadCon personnel. Nonradionuclide decontamination will be conducted in accordance with established project procedures or on a case-by-case basis under the direction of Industrial Hygiene personnel to determine the most appropriate PPE. In all cases, the collection, storage, and disposal of decontamination waste will be addressed before the generation of such waste and stored as described in Section 11.5. Protective clothing and respiratory protection selected for decontamination tasks will be based on the contaminant being decontaminated and as described in Section 5.

11.2.1 Equipment Decontamination

The OU 7-10 Project facility engineered isolation controls have been established, where feasible, to prevent contamination of project equipment and facilities from known or suspected sources of contamination. These controls will serve to isolate and eliminate or mitigate many of the potential contamination pathways to prevent equipment contamination and greatly reduce the need for decontamination.

When conducted, equipment decontamination will be performed in accordance with established project decontamination procedures. Low-cost consumable items will be discarded if initial decontamination efforts fail or extensive decontamination is required that is not in accordance with ALARA principles.

Decontamination of the OU 7-10 Project RCS and PGS will be conducted in accordance with the *OU 7-10 Glovebox Excavator Method Project Facility Shutdown Plan and D&D&D Pre-Plan* (PLN-343).

11.2.2 Personnel Decontamination

Engineering controls, in conjunction with facility contamination prevention and control practices and proper protective clothing donning and doffing procedures, will serve as the primary means to eliminate the need for personnel decontamination. The PPE selection, as identified in the RWP and JSA, will provide for the layered barriers required to prevent permeation and minimize external surface contamination.

Instructions for donning and doffing radiological protective clothing will be posted at the entry and exit control points to all contamination areas in accordance with PRD-183. Before donning PPE, all items will be inspected following the list in Table 9-2. One of the greatest potentials for personnel contamination exists from improper doffing of contaminated PPE when exiting a contamination area. All operations personnel who enter radiological contamination areas will doff PPE following the posted instructions. If questions or problems arise while doffing (such as tearing protective clothing), guidance and assistance on how to proceed should be requested from the assigned RCT.

11.2.3 Decontamination in Medical Emergencies

Injured or ill personnel should be immediately evaluated by first-aid-trained personnel (within their level of training and on a voluntary basis) within the project operations area where the incident occurred. The shift supervisor will contact the RWMC shift supervisor or the WCC (if the RWMC shift supervisor cannot be reached) to summon emergency services.

Medical care for serious injury or illness will not be delayed for decontamination. In such cases, gross decontamination may be conducted by removing the injured person's outer protective clothing (if possible) and other contaminated areas with a bag or glove. If contaminated PPE cannot be removed without causing hrther injury (except for the respirator, which must be removed), potentially contaminated areas of the individual will be wrapped in plastic, blankets, or available material to help prevent contaminating the inside of the ambulance, medical equipment, and medical personnel.

The IH or RCT (depending on the type of contamination) shall accompany the employee to the medical facility to provide information and decontamination assistance to medical personnel. Contaminated PPE then will be removed at the CFA medical facility (CFA-1612) and carehlly handled to prevent the spread of contamination. Information on proper handling of radionuclide-contaminated wounds is contained in MCP-148, "Personnel Decontamination."

11.3 Doffing Personal Protective Equipment and Decontamination

Personnel decontamination will likely be limited to doffing of PPE. However, some preliminary surface decontamination of protective clothing may be required if it is grossly contaminated and the potential for the generation of airborne radioactivity or organic vapor emissions exists. This will involve assistance from other personnel inside the contamination area and at the doffing location as described below. The ultimate goal of all decontamination methods is to effectively and efficiently isolate the source of contamination through removal of protective clothing and confinement of the contamination in a sealed bag or waste container.

If contamination is detected on outer PPE layers, careful removal of these outer PPE layers will generally isolate over 99% of surface contamination and this will serve as the primary decontamination method if protective clothing is contaminated. Removal of contaminated protective clothing using standard radiological doffing techniques (i.e., rolling outer surfaces inward and from top to bottom while being removed) provides the most effective method for containing and isolating the contaminants and greatly reduces the potential for exposure to other personnel who would be put at risk of cross-contamination from other decontamination methods (e.g., washing and brushing).

Where protective clothing also is worn as an anti-contamination layer, then tape, gloves, booties, and any required dosimetry will be removed following the posted doffing sequence. All PPE will be placed in the appropriately labeled waste containers. Doffing and any required decontamination will take place at the designated contamination area boundary or step-off pad. If exiting a radiological

contamination area, personnel will conduct the proper personal survey with hand-held detectors followed by an automated whole-body survey in a PCM (or equivalent), as stated in the RWP.

A general approach for doffing modified Level-D, -C or -B PPE is described in Sections 11.3.1–11.3.3. However, no single doffing strategy works for all circumstances. Modifications to this approach are appropriate if operational conditions change or at the discretion of the RCT in consultation with the IH. Both radiological and nonradiological hazards will be evaluated, as applicable.

11.3.1 Modified Level D Personal Protective Equipment Doffing and Decontamination

Modified Level D protective clothing (e.g., Tyvek coveralls and booties) will be doffed following standard radiological removal techniques (as posted) and will constitute the initial decontamination step. If the protective clothing also is being worn as an anticontamination layer, then tape, gloves, booties, and any required dosimetry will be removed following the posted doffing sequence. All PPE will be placed in the appropriately labeled waste container(s) for disposal. Doffing and any required decontamination will take place at the boundary between the contaminated area and the step-off pad. Doffing will be followed by conducting a personal contamination survey, as stated in the RWP.

Note: Under some radiological conditions, two sets of anticontamination clothing may be worn. When required, the posted instructions will address the proper doffing sequence for both sets.

11.3.2 Level C Personal Protective Equipment Doffing and Decontamination

Where respiratory protection is worn in conjunction with protective clothing (Level C PPE), the modified Level D sequence will be followed with one additional step. Following protective-clothing doffing, respirators will be removed and placed in a separate container. A survey of the face and sealing surfaces of the respirator then will be performed by the RCT or as part of the posted survey instructions by the respirator wearer. Doffing and any required decontamination will take place at the designated radiological control boundary as described above. If exiting a radiological contamination area, personnel will conduct the proper personal survey, as stated in the RWP.

11.3.3 Level B Personal Protective Equipment Doffing and Decontamination

The distinction between Level C and B PPE will be the addition of supplied air respiratory protection. Respiratory protection may be in the form of a bubble hood or airline respirator (with escape canister or cartridge where required). The doffing sequence when using a supplied airline is slightly more complicated than Level C respiratory protection and all operations personnel who will enter an area with Level B PPE must have a clear understanding of the doffing sequence before entering the area. It will be necessary to disconnect and tape over the supplied airline before exiting the contamination area. The RCT will assist personnel exiting these areas and doffing instructions will be posted and must be followed. Doffing and any required decontamination will take place at the designated radiological control boundary as described above. If exiting a radiological contamination area, personnel will conduct the proper personal survey, as stated in the RWP.

11.4 Personnel Radiological Contamination Monitoring

Radiological surveys (with hand-held detectors and an automated whole-body PCM) will be required before personnel exit project operational areas as stated on the RWP. The purpose of this hand-held instrument survey is to detect surface contamination. If survey instruments or the PCM alarms indicate elevated contamination levels are present, personnel should remain in the area and contact (or have someone in a nonradiologically controlled area) contact RadCon. When exiting a contamination area

or contamination radiological buffer area, an automated whole-body survey using a PCM station (or equivalent) must be conducted before using designated eating or smoking areas.

11.5 Storage and Disposal of Operational Waste Materials

Waste generated from decontamination and other project operational activities will be properly characterized, stored, and disposed of in accordance with the following documents:

- *WusteMunugement Plan* (Manual 17,2003)
- *WusteMunugement Planfor the OU 7-10 Glovebox Excavator Method Project* (INEEL 2003)
- Established project procedures
- Waste-disposal and disposition forms.

11.6 Project Sanitation and Waste Minimization

Project personnel will use washroom and restroom facilities located within the project operational areas and the RWMC area. Potable water and soap are available within the project operations areas for personnel to wash their hands and faces.

Industrial waste materials will not be allowed to accumulate at the project operational areas. Appropriate containers for industrial waste will be maintained within the project operational areas. Personnel should make every attempt to minimize waste through judicious use of consumable materials. All project operations personnel are expected to make good housekeeping a priority.

12. RECORDKEEPING REQUIREMENTS

12.1 Industrial Hygiene and Radiological Monitoring Records

The IH assigned to the OU 7-10 Glovebox Excavator Method Project will record airborne monitoring and sampling data (both area and personal) collected for project operational exposure assessments in the INEEL Hazards Assessment and Sampling System Database. All monitoring and sampling equipment will be maintained and calibrated in accordance with INEEL procedures and the manufacturer specifications. Industrial hygiene airborne monitoring and sampling exposure assessment data are treated as limited access information and maintained by the IH in accordance with INEEL safety and health manual procedures (Manual 14A, 2003; Manual 14B, 2003).

The assigned RCTs will maintain a logbook of radiological monitoring, daily project operational activities, and instrument calibrations where instruments were used to document detection levels or conduct field screening of samples. Radiological monitoring records will be maintained in accordance with companywide *Radiation Protection Procedures* (Manual 15B, 2003); PRD-183; and MCP-9, "Maintaining the Radiological Control Logbook."

All other health, safety, and radiological records, including inspections, will be maintained in accordance with appropriate and applicable requirements identified in companywide *Safety and Health—Occupational Safety and Fire Protection* (Manual 14A, 2003), *15A* (PRD-183), *Radiation Protection Procedures* (Manual 15B, 2003), and *Radiological Control Procedures* (Manual 15C, 2003), and applicable RWMC and project supplements.

12.2 Records Management

The Environmental Restoration Administrative Record and Document Control (ARDC) office organizes and maintains data and reports generated by field activities. The ARDC office maintains a supply of all controlled documents and provides a documented system for the control and release of controlled documents, reports, and records. Copies of project plans, this HASP, the quality program plan, the Quality Assurance Project Plan (QAPjP) (DOE-ID 2000), and other documents pertaining to these operations are maintained in the project file by the Environmental Restoration ARDC office. Controlled procedures for the RWMC and OU 7-10 Project will be issued, controlled, and maintained in accordance with MCP-135, "Creating, Modifying, and Canceling Procedures and Other DMCS-Controlled Documents," and applicable RWMC or project supplemental MCPs.

All additional project records will be maintained in accordance with applicable federal and state procedures, companywide manuals, and project-specific supplemental procedures.

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